

THE EFFECT OF CONCEPT MAPPING ON THE ABILITY OF THE FIRST YEAR STUDENTS OF SMPN 14 PEKANBARU IN WRITING DESCRIPTIVE TEXTS

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Abstract: *The objective of this research was to find out whether there is a significant effect of concept mapping on the students' ability of SMPN 14 Pekanbaru in writing descriptive texts. This is a pre-experimental research with one group pre-test post-test design. In conducting this research, a single group was selected to be a sample by using cluster random sampling. There were 36 students as the sample. A writing test was used both in pre and post-test. In order to know the difference between pre-test and post-test and to analyze the hypotheses, t-test formula was used. After analyzing the data, it was found that t-test score was 7.779 while t-table score in significance level 5% $df = 34$ was 2.032. Since t-test was higher than t-table, it can be concluded that alternative hypothesis was accepted. It can be further understood that "there is a significant effect of concept mapping on the students' ability of SMPN 14 Pekanbaru in writing descriptive texts". Based on the research findings, it is suggested that concept mapping can help the students to improve their writing ability especially in writing descriptive text.*

Key Words: *Effect, Concept Mapping, Writing Ability, Descriptive Text*

PENGARUH PETA KONSEP PADA KEMAMPUAN MENULIS SISWA KELAS 7 SMPN 14 PEKANBARU DALAM MENULIS TEKS DESKRIPTIF

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Abstrak: Penelitian ini bertujuan untuk mengetahui apakah ada pengaruh yang signifikan dari peta konsep pada kemampuan menulis siswa kelas 7 SMPN 14 Pekanbaru dalam menulis teks deskriptif. Penelitian ini adalah pre-eksperimen yang menggunakan desain satu kelompok pre-test dan post-test. dalam pelaksanaannya, satu kelompok dipilih sebagai sampel penelitian dengan menggunakan teknik cluster sampling. 36 siswa terpilih sebagai sampel penelitian. Tes menulis digunakan sebagai instrumen dalam pre-test dan post-test. T-test digunakan untuk mengetahui perbedaan antara hasil nilai siswa dalam pre-test dan post-test dan untuk menganalisis hipotesis. Setelah menganalisis data, diperoleh nilai t-test 7.779 sementara t-tabel dalam level signifikan 5% degree of freedom (df)34 adalah 2.032. karena t-test lebih besar daripada t-tabel, dapat disimpulkan bahwa hipotesis alternative diterima. Dengan kata lain “ada pengaruh yang signifikan dari concept mapping pada kemampuan siswa kelas 7 SMPN 14 Pekanbaru dalam menulis teks deskriptif.” Berdasarkan hasil penelitian, concept mapping dapat digunakan untuk meningkatkan kemampuan menulis siswa terutama dalam menulis teks deskriptif.

Kata kunci: Efek, Peta Konsep, Kemampuan Menulis, Teks Deskriptif

INTRODUCTION

Writing is not an automatic process. In writing, the students have to know not only the ideas but also the components of writing. It seems like writing as a process is more important than as a product. However, the reader expects to get the ideas from the product of writing. It concludes that writing is one of the most challenging skills for students to comprehend because when they write, they have to get the ideas and deal with the language in written form.

Based on the curriculum 2013 syllabus, the first year students of SMPN 14 Pekanbaru are required to study only one kind of text in the second semester that is descriptive text. Even though it is only one kind of text, they cannot comprehend it yet because they learn many things in a short time. They learn the definition, language feature, social function and generic structure of descriptive text, memorize a lot of adjectives and think about the grammar, appropriate vocabulary, punctuation, and capitalization in writing and the most difficult is how to write a descriptive text well if the students do not know how to organize their ideas.

According to Keraf (2006), descriptive text refers to transfer images, the feeling that conveys the image to the readers in order to imagine what is being described. By looking the object, the students explore their ideas in good paragraphs. It means everything should be described clearly so that the readers can get the ideas easily. However, the students could not organize the ideas well. They did not know how to write the characteristics of the object because they lacked the adjectives, were confused about how to express, build and develop their ideas.

To solve the problems applying a teaching strategy is needed in order to help the students write a better descriptive text. As Pishghadam and Ghanizadeh (2006) suggested, EFL students need more planning to organize their ideas in a coherent and unified piece of writing that is concept mapping. This technique will be applied in the process of writing.

Concept mapping is a technique for organizing and representing knowledge, include concepts, usually enclosed in boxes put the relationship concepts connecting by line. A concept mapping can help the students to organize the ideas, shows which ideas that are related each other, generate ideas to focus on the topic that students write to describe. To focus on the topic, concept mapping is really helpful so that the ideas do not jump from one to another. It also can develop the keywords and synonyms of the ideas. The students can identify the general and more specific concepts. Then, relate those concepts with linking words and develop the idea based on the concept mapping that has been made.

In addition, applying concept mapping for the first year students of SMP level might be another advantage. Because their ages are about 11 – 13 years old and in these ages, children can understand and be taught easily than adult. Typically, people who assert the superiority of child learners claim that children's brains are more flexible (Lenneberg, 1967; Krista and Casey, 2013).

METHODOLOGY

This research was a pre – experimental research. This research was conducted by using, one group pre-test – post-test. It involved a single group that was pre-test, exposed treatment and post-test and one class was involved in this research. The researcher compared the scores in pre-test and post-test to see whether the treatment is effective or not on the students' writing ability in writing descriptive texts.

Table 3.1 One group pre-test and post-test

Group	Pre-test	Treatment	Post-test
Experiment	O1	—	O2

(Sugiyono, 2011)

According to Gay (1987) the population is the group of interest to the researcher, the group which he or she would like to result of the study to be generalized. The population in this research was 296 students of the first year students of SMPN 14 Pekanbaru . They were VII.1 – VII.8.

Since the number of the students was large, the sample was selected to be representative of the population. Arikunto (2006) states if the population is more than 100, the sample should be 10-15% of the population. Because the number of the second year students is 296, it means $10\% \times 296$ equals 29.6 or it can be regarded as 30 students minimally. Since every class had more than 30 students, the researcher selected one class as the sample by using cluster random sampling. The sample in this research was VII.5 that consisted of 36 students.

In doing the research, the researcher administered two writing tests; pre-test and post-test. The students were assigned to write descriptive texts. The writing tasks were about people, animals and things around the students. The raters assess students' writing by following scoring rubric adapted from Hughes (1998). The components of writing that were assessed are grammar, vocabulary, mechanics, and form (organization). For other materials, the researcher used a whiteboard, a marker, and answer sheet.

Before applying the treatment, the researcher administered a pre-test to find out the students' writing ability in writing descriptive text. The students had to chose a topic from three topics given and had 60 minutes to write a descriptive text about it. Then, the students' writing was assessed by the three raters while the researcher was applying the treatment. The treatments were applied in six meetings with different topic in every meeting. The researcher introduced a concept mapping and asked the students to create their own concept mapping and write a descriptive text about the topic given by following the concept mapping.

After applying the treatments, the researcher administered a post-test to find out whether concept mapping is effective or not on the students' writing ability in writing descriptive texts. The students had to chose one topic from three topics given and had 60 minutes to write a descriptive text about it. But, before they describe the topic, the students had to create their own concept mapping and write a descriptive text according to the concept mapping. The students' writing was assessed by the three raters. After getting the data, the researcher compared the result on pre-test and post-test. Moreover,

students' score were classified to know the level of their writing ability by following classification of the students' writing score that was adapted from Harris (1974).

Table 3.2 Classification of the Students' Writing Score

No.	Test Score	Classification
1.	80 – 100	Excellent
2.	60 – 79	Good
3.	50 – 59	Average
4.	0 – 49	Poor

In addition, the data were analyzed to answer the hypothesis by using t-test formula. The researcher found out the complete result in SPSS including the mean, standard error mean, standard deviation, and degree of freedom. The criteria of testing the hypotheses according to Schervish (1996) are if the p-output (sig.2-tailed) is lower than 0.05 and t-value is higher than t-table (2.032) on significant level 5%, the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted and if mean score of pre-test is higher than post-test, the null hypothesis (H_0) is accepted and alternative hypothesis (H_a) is rejected.

RESULT AND DISCUSSIONS

Result

The test result aims to present the students' writing skill in for components of writing (grammar, vocabulary, mechanics, and form). Each of those aspects had 1 – 5 score based on analytic methods of scoring by Hughes (1998). In order to get the data more objective, valid, and reliable, three raters were invited to assess students' writing both in pre and post test.

Result of Pre-test

After conducting the pre-test, the researcher attained mean score is **59.54** for the pre-test, median **57.5** and the mode is **46.67** which were got by four students (13.9%). In addition, the standard deviation is **10.65** while the standard error mean is **1.78**. The students' result in the pre-test shows that only three students (8.4%) who got more than 78 as the minimum standard of achievement in English subject. Four students got **46.67** (11.1%) as the lowest score and one student got **88.33** (2.8%) as the highest score. The students' ability in writing descriptive text can be seen on table 4.1 below.

Table 4.1 Students' Ability Level on Pre-test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	15	41.7	41.7	41.7
	Excellent	2	5.6	5.6	47.2
	Good	13	36.1	36.1	83.3
	Poor	6	16.7	16.7	100.0
	Total	36	100.0	100.0	

Writing ability of the first year students of SMPN 14 Pekanbaru was not really good. It can be seen from the result of pre-test. Table 4.1 shows that most of the students' writing ability was in average to good level with the scores are 50 – 78.33. It shows that the students still difficult to write a good descriptive text by following the components of writing. The whole of students' score in pre-test can be seen in appendix VI.

Result of Post-test

After the researcher applied the treatment, the post-test were administered. The students' post-test result shows that the mean score of post-test was **75.65** and the mode is **76.67** which were got by seven students (19.4%) median is **75**, standard deviation is **7.43** and standard error mean is **1.24**. Ten students (28%) got more than 78 as the minimum standard of achievement in English subject, four students got **65** (11.1%) as the lowest score and one student got **96.67** (2.8%) as the highest score. The students' ability in writing descriptive text after the treatment was applied can be seen on the table 4.2.

Table 4.2 Students' Ability Level on Post-test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	8	22.2	22.2	22.2
	Good	28	77.8	77.8	100.0
	Total	36	100.0	100.0	

Writing ability of the first year students of SMPN 14 Pekanbaru improved after the treatment was applied. It can be seen from the result of post-test. Table 4.3 shows that the students writing ability level is good to excellent. There is no student that is on average and poor level. Thus, the increase of students score on pre-test and post-test indicate that the treatment given has significant effect on the students writing ability in writing descriptive texts. The whole score on post-test from three raters can be seen on appendix X.

Result of T-test

After conducting the post-test, the data were analyzed by using t-test formula to find out whether the hypothesis is accepted or not. The researcher found out the complete result in SPSS including the mean, the variance, standard deviation, standard error mean, and degree of freedom of the test that can be seen on the table 4.3.

**Table 4.3 Result of T-test
Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair post test - 1 pre test	16.11222	12.42762	2.07127	11.90732	20.31712	7.779	34	.000

From table 4.3, the researcher found that the standard deviation was **12.42762**. After obtaining the standard deviation, the standard error can be calculated. The standard error mean was **2.07127**.

Based on the data analysis, it shows that the mean different was significant. The value of t-test was **7.779**. Meanwhile, the values of t table on the df (degree of freedom) **34** was **2.032** with the level of significance (α) = 5%. Then, according to the result, the t-test was larger than the t table on significant level 5%. The level of significance was **7.779 > 2.032**. It means that the alternative hypothesis regarding the effect of concept mapping was accepted and its null hypothesis was rejected. In other words, there is a significant effect of using concept mapping on the ability of the first year students of SMPN 14 Pekanbaru in writing descriptive texts.

Discussions

This research is one of the efforts to improve students' writing ability in writing descriptive texts for the first year students of SMPN 14 Pekanbaru. It has been explained that concept mapping is a technique that can help the students in developing their ideas and elaborating keywords of the concept to write a good descriptive text.

Writing is usually considered into the most difficult skill because it requires the students to get the ideas and deal with the language and components of writing which are stated by Hughes (1998). Then, writing is also a complex process which the students have to go through some stages; pre-writing, planning, writing and revising the draft, and writing the final copy. Then, to overcome the difficulties a technique was applied, that is concept mapping.

Pishghadam and Ghanizadeh (2006) stated that EFL students need more technique to organize their ideas and suggested to applying concept mapping while writing a text. Concept mapping is a graphic organizer that is hierarchical structured, presented two dimension diagrams and show relationships between concepts indicated by linking words. It can help the students to write a good text. They could expand their

understanding of keywords. Construct a visual representation and see the relationship between different concepts which help them to write a text easily.

The students writing are better after applying concept mapping. It can be seen from the score on post-test (74.9) that is higher than on pre-test (58.47). In line with Meghyasi and Mohammad (2015) that got the same result with this research which showed the use of concept mapping could improve students' ability in writing descriptive texts.

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Conclusions

Based on the data analysis, it can be concluded that concept mapping is effective to improve the students' writing ability especially in writing descriptive texts. It can be seen from the students' mean score on post-test (74.90) that was higher than on pre-test (58.47). This happens because concept mapping can help the students to generate their ideas, expand their understanding of key vocabulary and concepts in simple definitions and integrate their background knowledge into definition.

Implications

Before the treatment applied, the students have some problems in writing text especially in writing descriptive texts. Therefore, to solve the problems, efforts and solutions are needed from the teacher and students. Then, the implications of this research are as follows:

Students' writing ability is not only affected by the students but also by other factors. One of the factors is the technique that teacher apply in teaching learning process. The teacher needs to be more creative in teaching by applying appropriate technique to help the students in learning activity especially in writing texts.

By using concept mapping in writing descriptive texts the students can see the relationship between concepts, represent knowledge and write the texts easily. Since concept mapping can be used to improve the students' ability in writing descriptive texts, the teacher may apply this technique and make necessary modification. For example, the teacher should be able to choose interactive topic and design an interesting map.

Recommendations

The students

The students may use concept mapping to organize, connect and synthesize information when they are writing a text. They need to keep writing in order to accustom themselves. In addition, they need to pay attention to the teacher's explanation and need to read more to increase their vocabulary.

The teachers

The teacher may use concept mapping as an alternative technique to improve the students' ability in writing texts especially descriptive texts. Then, the teacher should control and manage the students when they are working in groups to get an effective learning. The teacher's role is essential to train and guide the students in teaching learning process. The teacher also can give any homework for the students in different forms and kinds. In this way, the students can develop and improve their writing. Then, all of the students' work should be checked, corrected, and score, hence, the students' motivation can be built up.

Other researchers

Considering the methodology of the research, the researcher suggests to use control group and experiment group as the samples. They also may use other experimental research design and conduct a study on the use of concept mapping in writing other kinds of writing. In addition, they should organize the time as good as possible in conducting the research effectively in order to get satisfied result.

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